REMARKS

The above amendments and following remarks are submitted in response to the Official Action of the Examiner mailed August 19, 2004 (i.e., Paper No. 2). Having addressed all objections and grounds of rejection, originally presented claims 1-20, along with newly presented claims 21-25, being all the pending claims, are now deemed in condition for allowance. Reconsideration to that end is respectfully requested.

The Examiner has objected to the specification as containing "hyperlinks and/or other form of browse4r executable code". This ground of objection is respectfully traversed. Page 34 contains examples of the format of potential hyperlinks, but it does not contain any specific hyperlinks. Applicants do not object to amending the specification in a reasonable fashion if recommended by the Examiner. However, they are concerned that such modifications do not detract from the totality of the disclosure of the preferred modes of practicing Applicants' invention.

The specification has been amended above to include the serial number and filing date of a cross-referenced, co-pending, commonly assigned, application in response to the Examiner's objection.

Claims 1-20 have been rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,721,727, issued to Chau et al (hereinafter referred to as "Chau"). This ground of rejection

11

is respectfully traversed as to amended claims 1-20 for the following reasons.

The standard for a finding of anticipation during the examination process is specified in MPEP 2131, which provides:

> **TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM**
> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The rejection of claims 1-20 as anticipated by Chau is respectfully traversed because the Examiner has not found Chau to have "each and every element as set forth in the claim".

Chau is dedicated to showing how to construct and search a relational data base containing XML documents. This is apparent from the title, "XML DOCUMENT STORED AS COLUMN DATA", and from the abstract which begins:

> A technique is provided for creating metadata for fast search of XML documents stored as column data.

That means that Chau's attention is limited to storing data from an XML message into the relational data base and retrieving data from that relational data base for packing into an XML message. In other words, Chau is limited to transferring data from the XML message to the relational data base and transferring data from the relational data base to an XML message. The important thing, however, is that Chau has no interest in conversion between XML and other formats. Chau receives data in XML document format,

12

stores data in XML document format, searches data in XML document format, and communicates in XML document format.

Applicants' invention, on the other hand, establishes an interface from a legacy data base management system (as distinguished from data base) to a user terminal using XML messages. Applicants describe the Field of the Invention (see specification at page 1, lines 11-13) as:

> The present invention generally relates to data base management systems and more particularly relates to enhancements for providing an interface between a legacy data base management system and Internet servers employing XML (extensible markup language) protocol

The initiating transfer between a user and a data base management system involves the request of a "service". This service request may include appended input parameters but is primarily a request of the data base management system to execute one or more data base management functions which are presented to the data base management engine as an ordered sequence of command language script.

The result of honoring the service request by the data base management system is in a legacy format which is certainly not compatible with XML. Therefore, to complete the transaction, it is necessary to convert the service request result into an XML message for transfer back to the user terminal.

Thus, Chau searches a data base of XML documents whereas Applicants converts service request results from a legacy data

base which are not in XML format into an XML message from transfer to the service requestor.

Because the Examiner has apparently not found this distinction within Applicants' claims as presented, Applicants have herein slightly amended the pending claims to make this distinction much more explicit.

Specifically with regard to claim 1, the "response" and "conversion facility" elements have been amended to make it absolutely explicit that the "response" is not compatible with the XML format and the "conversion facility" converts this response into an "XML message" from transfer back to the requesting user terminal.

Chau deals only with XML documents. Therefore, Chau does not have a "conversion facility" for converting into XML format, because it has no need for such a structure. The rejection of claim 1, as amended and all claims depending therefrom, is respectfully traversed.

Claim 2 depends from claim 1 and further limits the "conversion facility" of claim 1. Chau has no "conversion facility" because it has no need for one. Therefore, it cannot have the limitations of claim 2 which further limit this structure. The rejection of claim 2, and any claim depending therefrom, is respectfully traversed.

14

Claim 3 depends from claim 2 and further limits the "conversion facility" of claim 1. Chau has no "conversion facility" because it has no need for one. Therefore, it cannot have the limitations of claim 3 which further limit this structure. The rejection of claim 3, and any claim depending therefrom, is respectfully traversed. Claim 4 depends from claim 3 and further limits the "conversion facility" of claim 1. Chau has no "conversion facility" because it has no need for one. Therefore, it cannot have the limitations of claim 4 which further limit this structure. The rejection of claim 4, and any claim depending therefrom, is respectfully traversed.

Claim 5 depends from claim 4 and further limits the "conversion facility" of claim 1. Chau has no "conversion facility" because it has no need for one. Therefore, it cannot have the limitations of claim 5 which further limit this structure. The rejection of claim 5, and any claim depending therefrom, is respectfully traversed.

Claim 6 is an independent apparatus claim having three basic elements. Though the Examiner has found the first element (i.e., a publicly accessible digital data communication network) at column 5, lines 50-52, there is no showing that the network is coupled to anything as claimed. Column 5, lines 49-53, states:

> For B2B applications, application data flows between
> database servers, via any network (e.g., the internet
> or an intranet), either directly without client
> interaction or indirectly via some client systems.

15

Clearly, this simply shows that the Internet exists but does not show the coupling which limits the claimed invention.

The second element of claim 6 is "a data base management system having an internal format different from XML". In support of his rejection, the Examiner alleges the exact opposite. He states:

> ....an XML column is used to store entire XML documents in the **native XML format**..... (emphasis added)

The claim requires a "non-XML format", whereas the Examiner cites storage of XML documents **in the native XML format.** This is readily distinguishable from the claimed element.

The third element of claim 6 is the Output Definition Table which converts the response into an XML document. Again, the Examiner cites the opposite. Column 3, lines 19-21, states:

> The XML data is mapped from the application DTD to the relational tables and columns using the document access definition based on the Xpath data model.

One reason that the claimed **Output Definition Table** is not mentioned is because this citation describes input to the data base, not output from the data base. Furthermore, because the XML format is constant throughout, as explained above, there is no need for a conversion or tools for conversion.

The rejection of claim 6, and all claims depending therefrom, is respectfully traversed for failure of the Examiner to show anticipation as defined by MPEP 2131.

16

Claim 7 depends from claim 6 and is further limited by "Document Type Definition (DTD) which defines a format of said XML document". The XML document is the response, which has been converted from the legacy format. Again the Examiner cites Chau, column 3, lines 15-21, which describes using the DTD to load XML documents into the data base. This does not meet the limitations of the claim. The rejection of claim 7, and any claims depending therefrom, is respectfully traversed.

Claim 8 depends from claim 7 and is further limited by "a repository within said data base management system for storage of said Output Definition Table". Chau has no "Output Definition Table", because there is no output conversion needed. Chau has no "repository". Therefore, the Examiner confusingly cites Chau, column 4, lines 25-31, which describes data storage in general terms. The rejection of claim 8 is respectfully traversed.

Claim 9 depends from claim 8 and is further limited by "a window for user activation of said Output Definition Table". Chau has no "window"; Chau has no "Output Definition Table"; and Chau has no need for either of these. Therefore, the Examiner cites Chau, column 8, lines 35-46, which has nothing to do with the claimed limitations. The rejection of claim 9 is respectfully traversed.

Claim 10 depends from claim 9 and further limits the claimed network element. Because Chau does not have the claimed network

element, it cannot meet this further limitation. The rejection
of claim 10 is respectfully traversed.

Claim 11 is an independent method claim having four steps.
The first step requires transferring a service request. Chau has
no service request. Therefore, Chau cannot transfer a service
request. As if to add confusion, the Examiner cites Chau, column
4, lines 15-24, which says nothing of transferring a service
request stating:

> A client computer 102 typically executes a client
> application and is coupled to a server computer 104
> executing one or more server software. The server
> software may include an XML system 110. The server
> computer 104 also uses a data store interface and,
> possible, other computer programs, for connecting to
> the data sources 106. The client computer 102 is bi-
> directionally coupled with the server computer 104 over
> a line or via a wireless system. In turn, the server
> computer 104 is bi-directionally coupled with data
> accesses 106.

The citation does not even obliquely mention transferring a
service request over a publicly accessible digital data
communication network, as claimed.

Because Chau has no service request, it cannot process the
service request as is limiting of the second step. As a result,
the Examiner simply recites Fig. 1 and column 4, lines 15-24.

The third step of claim 11 involves converting the response
into an XML document. Chau has no such output and no need for
such a conversion as explained above. Therefore, the Examiner

again cites Chau, column 3, lines 15-21, which generally discusses packing data into a data base.

The fourth step of claim 11 is limited by transferring the XML document produced by the third step via the publicly accessible digital data communication network. Because Chau has no such XML document produced, he again cites column 5, lines 50-52, which simply makes an off-hand reference to the Internet.

Claim 11 has four steps. Chau has none of these steps. Therefore, the rejection of claim 11, and all claims depending therefrom, is respectfully traversed.

Claim 12 depends from claim 11 and further limits the conversion facility. Chau has no such conversion facility and has no need for same. Instead of admitting this fact, the Examiner again cites column 3, lines 15-21, which merely discusses packing XML documents into a data base. The rejection of claim 12 is respectfully traversed.

Claim 13 depends from claim 12 and further limits the Output Definition Table. Chau has no Output Definition Table. Therefore, Chau cannot have the further structure which limits the Output Definition Table. The rejection of claim 13 is respectfully traversed.

Claim 14 depends from claim 13 and further limits the conversion process. Chau has no such conversion process. Therefore, Chau cannot have the further limitations. The

Examiner again cites Chau, column 3, lines 15-21. As is clear from this citation, it relates only to packing XML documents into a relational data base of XML documents. The rejection of claim 14 is respectfully traversed.

Claim 15 depends from claim 14 and further limits the publicly accessible digital data communication network. Chau does not have the limitations of the claims from which claim 15 depends. Therefore, Chau cannot meet these further limitations. The rejection of claim 15 is respectfully traversed.

Claim 16 is an independent apparatus claim having four "means-plus-function" claim elements. As such, it is to be examined in accordance with MPEP 2181 et seq. Though Chau off-handedly mentions the Internet at the cited column 5, lines 50-52, it says nothing of the claim limitation of "means for transmitting an XML document". Chau has no "service request" and therefore does not have the "processing means". As explained above in detail, not only does Chau not have a "converting means", it has no need for a "converting means". Chau also has no "sending means". Therefore, the rejection of claim 16, and all claims depending therefrom, is respectfully traversed.

Claim 17 depends from claim 16 and further limits the "processing means". Chau has no "processing means", so it cannot have the further structural limitations to the "processing means". The rejection of claim 17 is respectfully traversed.

Claim 18 depends from claim 17 and is further limited by a "defining means" for creating the converted response. Chau has no "service request", no "processing means" for processing the service request", no response generated by the processing of the service request, and therefore, has no "defining means" to define the response. The rejection of claim 18 is respectfully traversed.

Claim 19 depends from claim 18 and further limits the "transmitting means". Chau does not have the "transmitting means" as claimed. Therefore, it does not have the further limitations of claim 19. The rejection of claim 19 is respectfully traversed.

Claim 20 depending from claim 19 and adds the further limitation of the "defining means" being stored in the "storing means". Chaus has neither the of these elements. Therefore, it cannot have the further limitations of claim 20. The rejection of claim 20 is respectfully traversed.

Newly presented claims 21-25, though of differing scope, are deemed similarly limited.

Having thus responded to each objection and ground of rejection, Applicants respectfully request entry of this amendment and allowance of claims 1-25, being the only pending claims.

Please charge any deficiencies or credit any overpayment to Deposit Account No. 14-0620.

Respectfully submitted,

Thomas N. Turba et al.

By their attorney,

Wayne A. Sivertson
Reg. No. 25,645
Suite 401
    Broadway Place East
3433 Broadway Street N.E.
Minneapolis, Minnesota
    55413
(612) 331-1464

Date November 19, 2004